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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,473	09/06/2001	Anthony Richard Bonaccio	BUR920010063	4175

7590

05/22/2002

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EXAMINER

LUU, AN T

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/682,473

Applicant(s)

BONACCIO ET AL.

Examiner

An T. Luu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 07 March 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's Amendment filed on 3-7-02 has been received and entered in the case. The rejections set forth in the previous Office Action are partially maintained as indicated below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-~~20~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over the Wissell et al reference (U.S. Patent 6,081,167).

Wissell discloses in figure 2 an apparatus comprising a generating circuit (32, 34, and 42) for generating a differential sinusoidal signal pair (42a, 42b); a distribution circuit (44) for coupled to the generating circuit to distribute the differential sinusoidal signal pair; and a plurality of clock receiver circuits (32) coupled to the distribution circuit to convert the differential sinusoidal signal pair into respective local clock signals (Digital SIN and Digital COS as shown in fig. 3) as partially recited in claims 13 and 22. Wissell et al does not specifically disclose a differential sinusoidal signal pair being 180 degrees apart as required by claims. However, column 5, lines 4-6, indicates that different phases can be any value between 0-360 degrees. For simplicity, Wissell et al chooses signal pair to be 90 degrees apart so that that they can be denoted as sine and cosine signals. It would have been obvious to one skill in the art

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to select a signal pair having different phases (i.e., 180 or 200 degrees) which best suits for the need of his application without departing from the spirit of Wissell's invention.

As to claims 14-15 and 24-25, it is inherent that the local clock signals have an amplitude equal to power supply voltage coupled to a device to generate the local clock signals. Further, it is inherent that peak-to-peak amplitude of the sinusoidal signal is less than the peak-to-peak amplitude of the local clock signals because the local clock signals are achieved by amplifying the sinusoidal clock signals.

As to claims 20 and 30, column 6, lines 7-10, discloses that clock receiver including a differential amplifier.

As to claim 21, it is noted that element 34 is for tuning frequency of the distribution circuit.

As to claim 23, figure 3 discloses two distinct signals to be considered as splitting the local clock.

As to claims 16-19 and 26-29, Wissell discloses all the claimed invention recited in claims except for having the specific values for peak-to-peak amplitudes of the local and sinusoidal clock signals. It would have been obvious to one skilled in the art at the time the invention was made to select a particular value of the amplitudes since it has been held that where the general conditions of claims are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

As to claim 6, it is well known in the art that routing track are formed side by side so that transmitting signals have the same travel distances (i.e., H- or TREE- distribution network).

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As to claims 1-5, 7 and 9-12, they are rejected for reciting methods and/or steps derived from the apparatus rejected in claims noted above.

Response to Arguments

3. Applicant's arguments filed 3-7-02 have been fully considered but they are not persuasive.

Applicant has argued that "differential signal pair" is substantially equal in frequency and amplitude and 180 degrees apart. Examiner respectfully disagrees because any pair of signals having significant non-overlapped portion can be considered as being "differential". Only are complementary and non-overlapped signals considered being 180 degrees apart. The rejection has been modified to accommodate Applicant's position on term "differential".

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,


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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 703-308-4922. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

An T. Luu 
May 9, 2002


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800